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Enclosed is the latest version of the Norwegian Government's North Sea Oil "Fact Sheet." It gives a useful summary of current figures and new policy developments.

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Enclosures: Five copies - Fact Sheet - The Norwegian Continental Shelf

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*EUR*FACT SHEET
THE NORWEGIAN CONTINENTAL SHELF
15 JULY 1978

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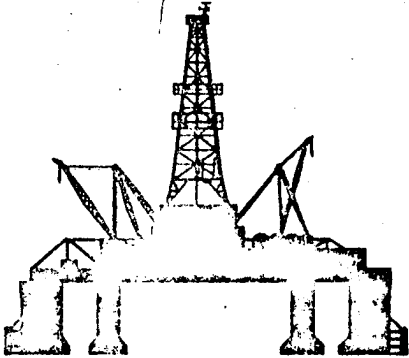
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1. Objectives

The aim of this fact sheet is to provide a short summary of a number of significant issues in connection with the petroleum activity on the Norwegian continental shelf, as well as clarify what has happened since issuance of the fact sheet of 15 April 1978.

2. Exploration

Twenty-five new production wells were begun to date in 1978, of which 12 were drilled on the British side of the Frigg field.



As of 1 June 1978, seven new exploitation wells were begun: six exploration and one de-
neatation well. In addition, Norsk Hydro has re-entered well 30/7-6, and Statoil has re-entered well 1/9-3. This past winter, these wells were abandoned due to technical problems.

The Statoil/Petronord Group, with Norsk Hydro as operator, has completed well 15/5-1 on production license 048, allocated in 1977. During drilling, hydrocarbons were encountered in layers of Mesozoic Age and two zones were tested. The well had a total depth of 119 meters. The extent to which this find can be declared commercial depends upon the further evaluation and development in the area.

The Statoil/Petronord Group with Norsk Hydro as operator has completed drilling on well 30/7-6 on production license 040, allocated in 1975. Hydrocarbons were encountered in sandstone layers of Mesozoic Age, but the well was not production tested. Additional exploration drilling is necessary to evaluate the significance of the find.

On behalf of the Statoil/Esso/Hydro Group, Statoil has conducted exploration drilling of well 15/9-2 on production license 046, allocated in 1977.

Gas was discovered in sandstone of Jurassic Age. The well was not production tested. The well was drilled to rocks of probable Trias Age and to a depth of 3739 meters. The water depth at 15/9-2 is 108 meters. Gas was proven on a structure about four km south of the Sleipner field. On the Sleipner field, gas was found in a comparable layer of sandstone, and the new find must be viewed in connection with Sleipner. Further drilling is necessary in order to establish whether gas has been found in commercial amounts in the area.

The Statfjord/Mobil Group has concluded drilling of exploration well 33/9-10 on a separate structure north of the Statfjord field. The well was drilled to a depth of 3690 meters and was plugged and abandoned as a dry well. The water depth is 162 meters.

3. Reserves

The proven recoverable reserves remaining amount to approximately 510 million tons of oil, about 30 million tons of natural gas liquids (NGL), and about 450 billion cubic meters of natural gas (Nm₃). The reserves are distributed in the following areas.

Table 1 - Proven recoverable reserves remaining as of 1 June 1978

	Oil (Millions of tons)	NGL (Millions of tons)	Gas (Billions of Nm ₃)	Total Millions of tons o.e	Tons o.e recov- ered.
Ekofisk (1)	190	20	260	470	57
Frigg (2)			110	110	2
Statfjord (3)	280	10	60	350	
Valhall A	30	0	20	50	
Murchison (3)	10			10	
Reserves decided to be developed	510	30	450	990	59
Additional proven recoverable reserves	130		200	330	
Total recoverable reserves	640	30	650	1320	

- 1) The Ekofisk-area consists of the Ekofisk, Cod, Tor, Eldfisk, West Ekofisk, Edda and Albuskjell fields.
- 2) The field straddles the boundary with the British sector. 60.82 percent of the field is on the Norwegian sector and 39.19 percent is on the British sector.
- 3) The field straddles the boundary line with the British sector. The figures show the preliminary distribution of reserves between the licencees.

The reserve estimates are based on calculations made by the Norwegian Petroleum Directorate. These estimates are somewhat lower than those provided by the licencees. The difference is rather substantial for a number of fields in the Ekofisk complex, while the difference in calculations concerning the Statfjord field has been reduced recently. According to the licencees, the total recoverable reserves are approximately 125 - 150 million tons of oil and about 70 - 120 billion cu.m. of gas in excess of what is presented in Table 2.

The figures are subject to major uncertainty. New drilling and production data could present more reliable figures than are available today.

4. Production

The annual commercial production of oil and gas has been as follows:

Table 2: Production of oil and gas

	1971	1972	1973	1974	1975	1976	1977	1978 1 Jan-1 June	Accumu- lated
Oil in millions of tons	0.3	1.6	1.6	1.7	9.2	13.6	13.4	7.3	48.7
Gas in billions of Nm ³							2.5	4.9	7.4

Estimated peak-production of oil and gas from the various fields and an estimated time-schedule for peak-production are presented in Table 3 below.

Table 3 - Estimated peak-production of oil and gas

	Max. oil production barrels/day	Period	Max. gas production, bill. cu.m/year	Period
Ekofisk	575 000	1980-81	21	1980-81
Frigg	-	-	9	1981
Statfjord	520 000	1987-89	2	1986
Valhall A	82 000	1983-86	2	1991-92
Murchison	20 000	1983-84	-	-

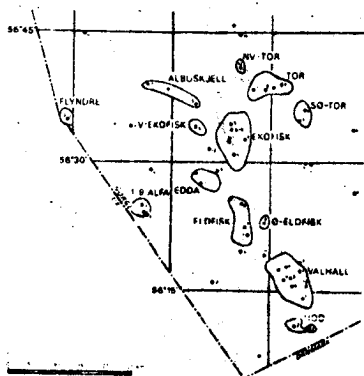
Estimated yearly production is shown in Enclosure 1.

5. Field-development (see Enclosure 2)

5.1 Ekofisk complex

The Ekofisk complex will be developed with a total of 18 platforms. The Ekofisk area will be developed in four phases. Phases 1 and 2 have been concluded.

Phase 3 (Ekofisk Center, West Ekofisk, Cod, Tor and the pipelines to Teeside and Emden)



All main structures for the platforms have now been placed. The oil pipeline to Teeside went on stream during the autumn of 1975.

The first commercial gas production started on 17 September 1977. This gas is transported through the pipeline to Emden, West Germany.

Production start-up on West Ekofisk began on 30 November 1977 and on the Cod field on 28 December 1977. Only smaller amounts of oil have been produced from the Cod field since start-up. Production drilling on the Tor field has taken somewhat longer than expected, but production began on 2 July 1978.

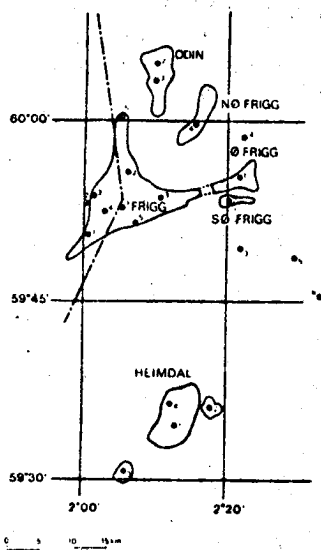
Phase 4 (Edda, Eldfisk, Albuskjell)

The activity in the Ekofisk area has to date in 1978 been characterized by building up the platforms for the phase-4 fields, laying of pipelines to Albuskjell and Eldfisk, as well as production drilling on Albuskjell platforms 2/4F and 1/6A and Eldfisk platform 2/7A. The production from Eldfisk and Albuskjell is expected to start during 1979, and the production from Edda at the end of 1979 or the beginning of 1980.

5.2 Frigg (Enclosure 3, page 19)

The Frigg field will be developed in three phases with a total of 6 platforms.

Phase 1 Installation of a combined drilling and production platform, a processing and gas treatment platform, and a living quarters platform and control center on the British side. Production started on 13 September 1977.



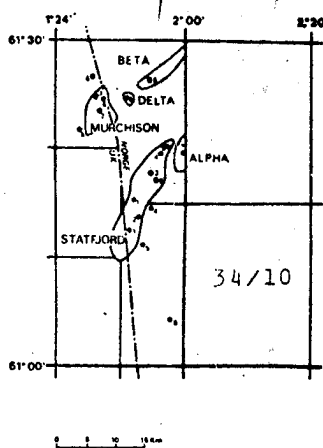
Phase 2 Installation of a combined drilling and production platform, a gas treatment and compression platform is still under way on the Norwegian side. Drilling of production wells was started up during the fall of 1977. The Norwegian facilities are expected to start gas deliveries during the last half of 1978.

Phase 3 Installation of additional compression capacity on the gas treatment and compression platform.

5.3 Statfjord

The Statfjord field will be developed in two phases.

Phase I This phase is comprised of the installation of a combined drilling, production and quarters platform (Statfjord A), connected to a single point mooring buoy that will transfer oil to tankers on the field.



The Statfjord A platform was towed out to the field on 8 May 1978. Production drilling is scheduled to start during 1978, and the first production towards the end of 1979. Because the Statfjord A platform was not fully mounted and assembled at the time of towout, a significant amount of work remains to be done on the platform. This situation can result in delays and cost increases. The Statfjord A platform has a production capacity of 300,000 barrels a day (with an average annual capacity of 250,000 barrels a day). The single point mooring buoy for the Statfjord A will be towed out in 1978 and it will be ready for use in 1979.

Phase 2 The Statfjord B will be a four-legged concrete platform of the Condeep type, with a production capacity of 180,000 barrels/day, and an annual average capacity of 150,000 barrels a day. The building contract for the concrete structure has been awarded to Norwegian Contractors, and work has already begun in Hinnavågen, Stavanger.

According to the group plans, the Statfjord B is scheduled to be towed out in 1981, and production start-up is planned for the following year. During the first years of production, the oil from the Statfjord B will be loaded from a single point mooring buoy into tankers on the field.

No decision has yet been made regarding future field development. Preliminary group plans include one additional platform, the Statfjord C.

The building of the Statfjord C must be viewed as an integral part of the issue of a permanent transportation system, effective selection of the reserves, and possible exploitation of a discovery in the vicinity of the Statfjord field.

5.4 Hod/Valhall

The licensees of the Hod/Valhall area plan to develop the area in four phases.

Phase I This phase includes the development of the central part of the Valhall structure (Valhall A) with one drilling platform, a production and compression platform, and one quarters platform.

Furthermore, the accepted plans also include laying of two pipelines from Valhall to the Ekofisk Center and installation of equipment. Drilling of production wells in the Valhall A area is expected to start at the end of 1979 or the beginning of 1980; and according to the licensees, production start-up is scheduled for 1981.

Phases 2, 3 and 4 consist of the development of the Hod, Valhall B, and Valhall C fields, respectively. The licensees have not yet decided on development for phases 2, 3 and 4. The development is dependent on various factors, including positive results for the delineation wells.

5.5 Murchison

On 19 May 1978, the Norwegian Parliament decided that Statoil should exercise its option of 50 percent of the Norwegian share of the field. The Statoil estimate of the company share of recoverable reserves on the Norwegian side are 16.5 percent.

Production will be conducted from a steel platform. The platform, which will be placed on the British side, is a combined drilling, production and quarters platform. The platform is planned towed out to the field in 1979; and followed by offshore installation of modules, drilling equipment, etc. Drilling start-up is scheduled for December of 1979, and production start-up for July 1980.

6. Transfer of rights

There was a transfer of rights on the Norwegian continental shelf during the second quarter of 1978. NOCO transferred ten percent of block 2/9 (Production license 032) to Svenska Petroleum AB. The transfer was approved by the Ministry of Petroleum and Energy in mid June 1978.

7. Transportation

Ekofisk-Teeside.

The oil pipeline went into regular production on 20 October 1975.

The oil pipeline was closed the first few days in June due to repair work on the pipeline at Teeside. While the repairs are under way, offshore loading will be used. The repair work is expected to take about six weeks.

With regard to the pipelines to the satellite fields in the Ekofisk area, repairs area now being done, as well as covering, testing, and joining of the pipeline. This work will be conducted now and in the near future.

Ekofisk-Emden.

The 442-km-long pipeline for transportation of gas went into production on 17 September 1977.

Frigg-St. Fergus.

The pipeline owned by the British licensees on the Frigg field went into ordinary operation on 13 September 1977. The other gas pipeline, owned by the Norwegian licensees, is at the stretch between the compressor platform and St. Fergus, and is filled with gas and ready for operation. On the stretch from Frigg to the compressor platform, it is filled with nitrogen and ready for operation as soon as the gas-treatment and compressor platform is ready.

Statfjord.

The current transportation system involves the offshore loading of oil, from the Statfjord A and B platforms, to single point mooring buoys, and then into tankers. No decision has been made regarding a permanent transportation system. The licensees will conduct a development and testing program before a final decision is made. The plans include a 210-km-long pipeline to Sotra.

At the same time, the group is evaluating various offshore loading systems as well. The results of these studies are scheduled to be presented during the course of this year.

Valhall A.

The oil and gas from the field will be transported through the oil and gas pipelines (the Norpipe system) from the Ekofisk field.

Murchison.

The British licensees have negotiated an agreement with the owners of the Brent pipeline system regarding the transportation of oil and NGL from the Murchison field to Sullom Voe on the Shetland Islands. The Norwegian licensees are evaluating two main alternatives for the landing of oil from the Norwegian part of the field,

either through the Brent pipeline system or through an exchange agreement where production from Murchison is exchanged for Statfjord production. Currently, no standpoint has been taken with regard to the landing alternative for petroleum from the Norwegian sector of the field.

8. Investments

The development of oil and gas resources in the North Sea requires considerable investments. Until now, these investments have been undertaken mainly by private companies. However, government investments in oil activities will gradually rise because of the increasing participating interests of Statoil.

As of 1 January 1978, about 32 billion kroner had been invested in permanent installations and pipelines (excluding exploration). As of 1 January 1978, approximately 4.9 billion kroner went to exploration. Thus, a total of about 37 billion Norwegian kroner was used for exploration and development on the Norwegian continental shelf.

Table 4 below shows the distribution of investments in the various fields or areas.

Table 4 - Investments in the fields

Field	Accum. invests. as of 1.1.77. Millions of kr.	Accum. invests. as portion of total invests. program for field
Ekofisk complex	19 000	2/3
Frigg	8 600	9/10
Statfjord 1)	4 200	1/8
Valhall A	50	--
Murchison	0	0
Total	32 100	41%

The Ekofisk investments include the development of the whole field and the pipelines to Emden and Teesside. The Frigg investments include the Norwegian pipeline and 60.82% of the field. The Statfjord investments include the estimated Norwegian share of the field investments, that is 88.88 percent and the permanent transportation system with the terminal, excluding the NGL plant.

The Valhall investments include the development of Phase I. The investments in Murchison are based on the assumption that the Norwegian share of the field amounts to 16.6 percent of the reserves.

9. Government revenues

To date, revenues from petroleum activity have been relatively modest in relation to what can be expected in the future. As of 1 January 1978, the government treasury received approximately 5,500 million kroner from this activity in the form of taxes, royalty, and concession fees. Of this, 3,100 million kroner was paid the treasury in 1977. Of this again about 2,400 million kroner was taxes, about 650 million kroner was production royalty, and about 50 million kroner was from concession fees.

10. Block 34/10

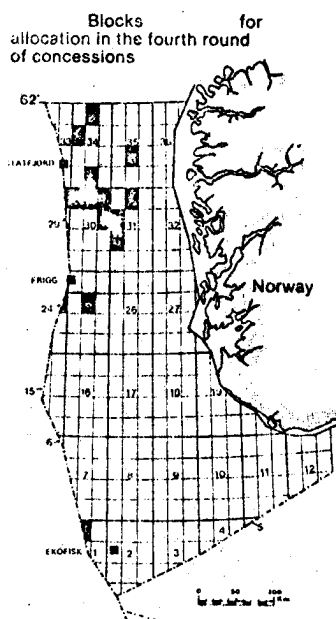
Production license 050 for block 34/10 has been allocated to Statoil, Norsk Hydro and Saga. Statoil will be operator on the block and has an 85-percent ownership interest, while Norsk-Hydro and Saga have shares of nine percent and six percent, respectively.

There is a clause in the production license regarding later regulation of the Statoil participating interest in connection with licensing to develop a deposit.

In connection with Statoil's operator function, a technical assistance agreement has been entered into for the exploration phase. After negotiations with a total of nine companies, the Ministry established the principles for the technical assistance agreement. After more detailed negotiations, Statoil entered into a technical assistance agreement with Esso for block 34/10. The final agreement has been approved by the Ministry of Petroleum and Energy.

The Production License for 34/10 has a clause whereby a find can not be developed without approval by the Ministry. The question of possible development will be placed before the Parliament. Drilling on block 34/10 started on 20 June 1978.

11. Fourth round of concessions



The first of June was the deadline for applications for production licenses in the fourth round of concessions. There has been a great deal of interest in the 15 blocks announced, most of which are located in the northern section of the North Sea, and the Ministry of Petroleum and Energy has received a total of 36 applications from 47 different companies. Among the applicants, there are companies from Norway, Sweden, Belgium, Canada, France, Holland, Ireland, Italy, Spain, Great Britain and West Germany. All of the world's largest oil companies submitted applications.

The Ministry has held a meeting with each applicant during the second half of June. During the last half of August and the beginning of September, it will be possible to start concrete negotiations on the individual blocks. The Ministry plans to begin allocations during the autumn of 1978, and is preparing new standard production licenses and state participation agreements for the fourth round of concessions.

12. Norol

In Parliamentary Bill Number 142 for 1977-78, the government presented a proposition for strengthening the operational foundation of Norsk Olje a.s. It was suggested that Norol release the capital locked up in the refinery at Mongstad by transferring this to Statoil.



However, the majority of the Storting voted to allocate 300 million kroner as a loan to Norol. The Ministry of Petroleum and Energy has started work on a new parliamentary proposition on this issue, planned presented to the Storting during the spring 1979 term.

13. Volvo

On 22 May 1978, the Prime Minister announced that the Norwegian government entered into an agreement in principle with AB Volvo on an understanding with the Swedish authorities.



Among other things, the agreement involves the structural change in AB Volvo of Göteborg into a Swedish-Norwegian concern, in which the Swedes will hold 60 percent interest and the Norwegians will have 40 percent ownership interest.

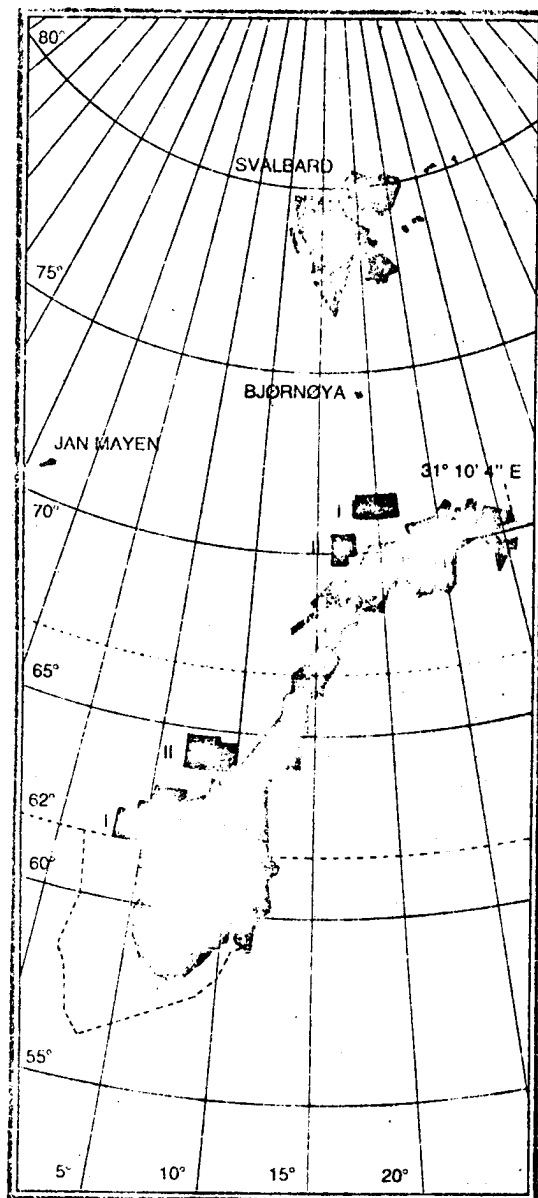
The Swedish-Norwegian Volvo company will invest between 500 and 700 million kroner in Norway over a five-year period. These investments will create the conditions necessary for 3000 to 5000 new jobs in Norway.

It is the intention that Volvo Petroleum, which is one of the applicants in the fourth round of concession, will to a reasonable degree be taken into consideration for exploration and production licenses on the Norwegian Continental Shelf.

The agreement opens the possibility of negotiations between the Norwegian and Swedish authorities regarding long-term deliveries of petroleum and petroleum products to Sweden on a worthwhile business conditions.

By 15 October 1978, the agreement in principle will be replaced by a final agreement. The final agreement will require the approval of the Norwegian Parliament, the Swedish Parliament and the Volvo Company General Assembly, in order to be validated. Presumably, the case will come up in the Norwegian Parliament in January of 1979.

14. North of the 62nd parallel



There will be a separate parliamentary report on the study for plans north of the 62nd parallel, and this is expected to be presented in the beginning of January 1979. It will be a followup on Parliamentary Report Number 91 for 1975-76. There have been several studies in order to prepare the basic material for the report. Among these can be mentioned: NOU 1978:24 "Petroleum and fishing industries", and a Veritas report: "Risks of a blow-out on the Norwegian continental shelf".

Twenty-three companies have purchased a seismic data package for Area I off the coast of Troms and Finnmark; and the sale of seismic data is currently underway for Area II off the coast of Møre/Trøndelag.

Drilling north of the 62nd parallel will be able to start at the earliest in 1980. The Ministry of Industry plans to open two areas: Area I off the coast of northern Norway and six blocks northwest of the Halten fishing banks, off the coast of Trøndelag.

15. Reports and Bills to the Storting in 1978 on Petroleum Activities.

Parliamentary Bill Number 72 for 1977-78 On announcement and allocation of blocks on the continental shelf, and on drilling under the direction of the state.

Parliamentary Report Number 65 for 1977-78 The Ekofisk blow-out on the Bravo platform on 22 April 1977.

Parliamentary Bill Number 123 for 1977-78 Exercise of the option held by Den norske stats oljeselskap a.s. for participation in the development of the Murchison field.

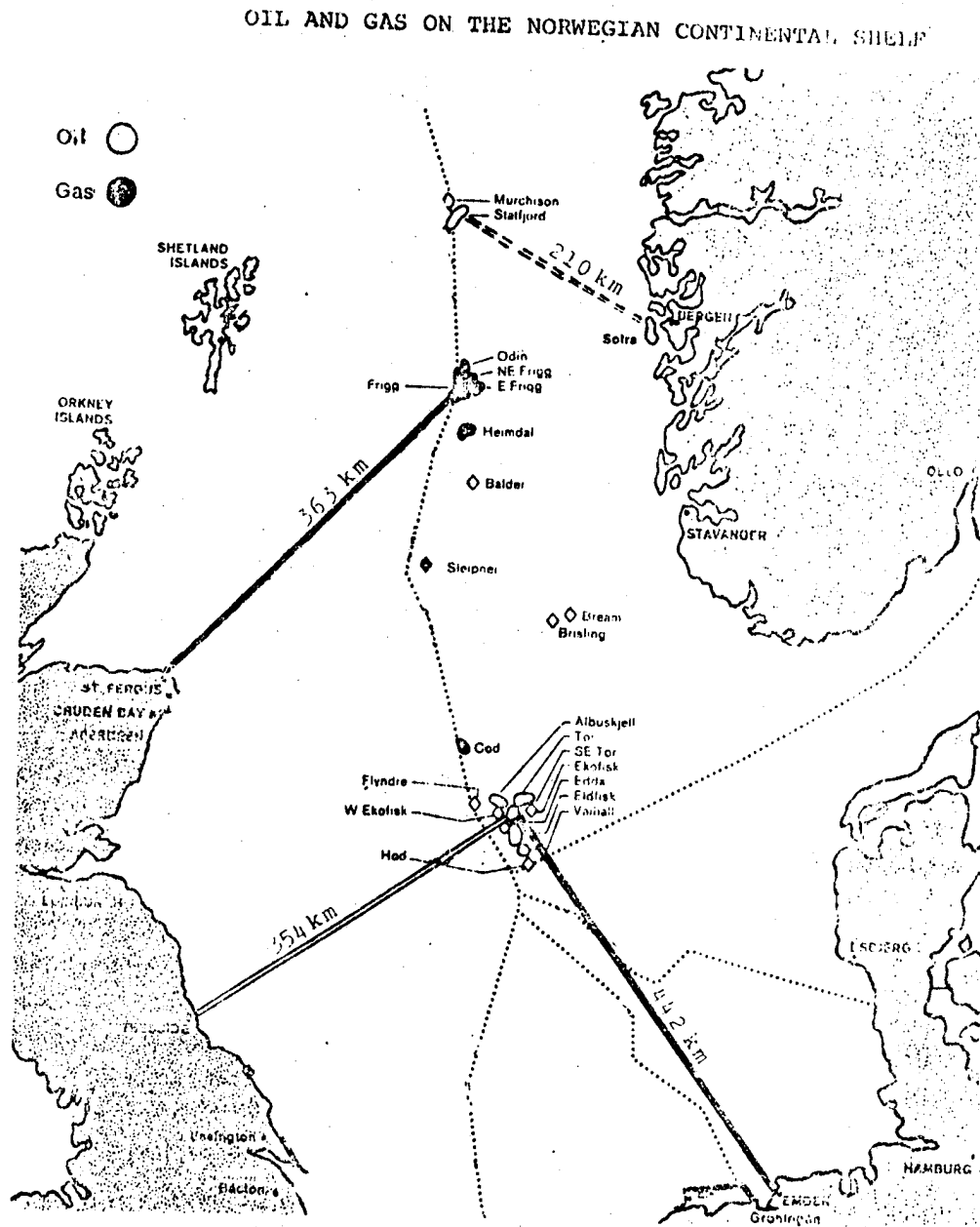
Parliamentary Bill Number 143 for 1977-78 On extension of the framework for the state guarantee for Den norske stats oljeselskap a.s. in 1978.

Parliamentary Report Number 87 for 1977-78 The 1977 Annual Report of the Norwegian Petroleum Directorate.

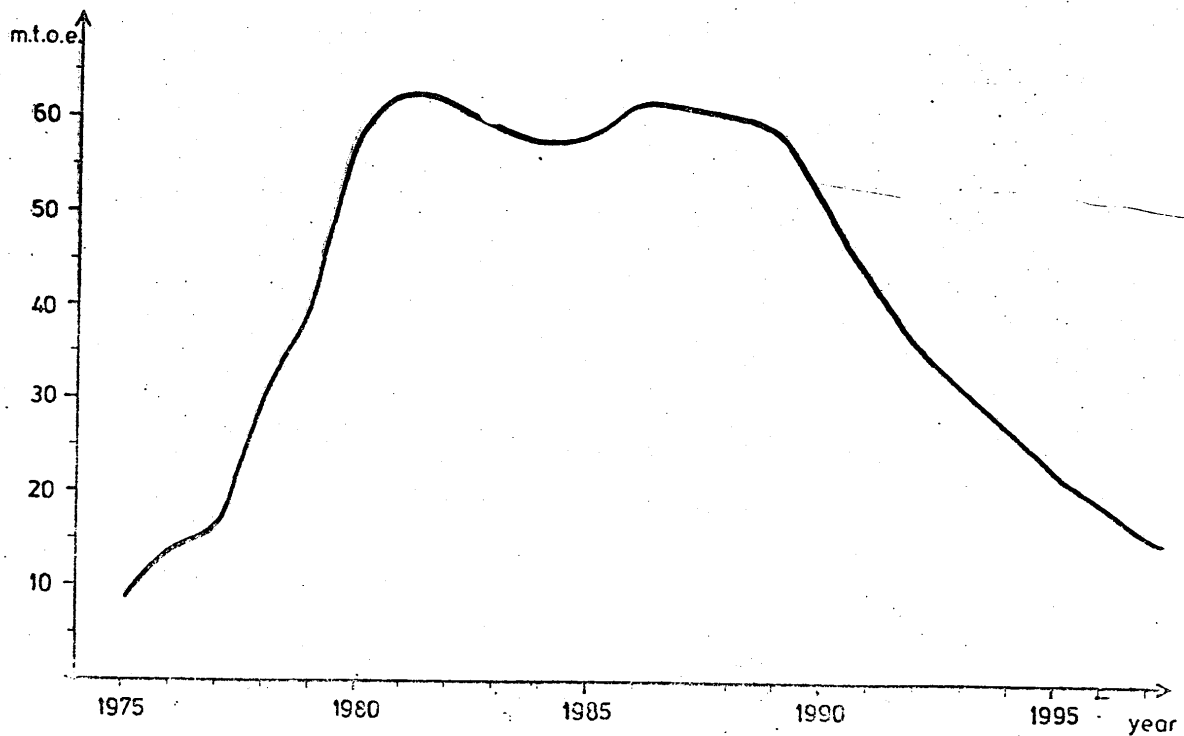
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Enclosure 2



PRODUCTION FROM FIELDS WHERE DEVELOPMENT HAS BEEN DECIDED (m.t.o.e.)



Enclosure 1

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